EXHIBIT L

Smith Economics Group, Ltd.
A Division of Corporate Financial Group
Economics / Finance / Litigation Support

Stan V. Smith, Ph.D.
President

August 2, 2019

Mr. John M. Eubanks
Motley Rice
28 Bridgeside Blvd.
Mt. Pleasant, SC 29464

Re: Nassaney

Dear Mr. Eubanks:

You have asked me to calculate the value of certain losses subsequent to the death of Shawn Nassaney. These losses are: (1) the loss of wages and employee benefits; (2) the loss of housekeeping and household management services; and (3) the loss of the value of life ("LVL"), also known as loss of enjoyment of life.

QUALIFICATIONS AND EXPERIENCE

I am President of Smith Economics Group, Ltd., headquartered in Chicago, IL, which provides economic and financial consulting nationwide. I have worked as an economic and financial consultant since 1974, after completing a Research Internship at the Federal Reserve, Board of Governors, in Washington, D.C. My curriculum vitae lists all my publications in the last 10 years and beyond.

I received my Bachelor's Degree from Cornell University. I received a Master's Degree and my Ph.D. in Economics from the University of Chicago; Gary S. Becker, Nobel Laureate 1992, was my Ph.D. thesis advisor. The University of Chicago is one of the world's preeminent institutions for the study of economics, and the home of renowned research in the law and economics movement.

As President of Smith Economics, I have performed economic analyses in a great variety of engagements, including damages analysis in personal injury and wrongful death cases, business valuation, financial analysis, antitrust, contract losses, a wide range of class action matters, employment discrimination, defamation, and intellectual property valuations including evaluations of reasonable royalty.

I have more than 40 years of experience in the field of economics. I am a member of various economic associations and served for three years as Vice President of the National Association of Forensic Economics (NAFE) which is the principal association in the field. I was also on the Board of Editors of

the peer-reviewed journal, the Journal of Forensic Economics, for over a decade; I have also published scholarly articles in this journal. The JFE is the leading academic journal in the field of Forensic Economics.

I am the creator and founder of Ibbotson Associates' Stock, Bonds, Bills, and Inflation (SBBI) Yearbook, Quarterly, Monthly, and SBBI/PC Services. SBBI is currently published by Duff & Phelps and is also available on various Morningstar, Inc. software platforms. SBBI is widely relied upon and regarded as the most accepted and scholarly reference by the academic, actuarial and investment community, and in courts of law. The SBBI series, which acknowledges my "invaluable role" as having "originated the idea" while Managing Director at Ibbotson Associates, is generally regarded by academics in the field of finance as the most widely accepted source of statistics on the rates of return on investment securities.

I wrote the first textbook on Forensic Economic Damages that has been used in university courses in various states; as an adjunct professor, I created and taught the first course in Forensic Economics nationwide, at DePaul University in Chicago. I have performed economic analysis in many thousands of cases in almost every state since the early 1980s.

BACKGROUND

Shawn Nassaney was a 25.2-year-old, Caucasian, single male, who was born on [redacted], and died on September 11, 2001. Mr. Nassaney's remaining life expectancy is estimated at 52.5 years. This data is from the National Center for Health Statistics, United States Life Tables, 2015, Vol. 67, No. 7, National Vital Statistics Reports, 2018. I assume an estimated trial or resolution date of January 1, 2020.

In order to perform this evaluation, I have reviewed the following materials: (1) W-2's from 1998 through 2001; (2) Itemized Statement of Earnings from the Social Security Administration; (3) an academic transcript from Bryant College; (4) pictures of Shawn Nassaney and his family; (5) a letter from Roger Dowdell, CEO and President of American Power Conversion Corporation (APC), dated September 9, 2002 as well as performance reviews; (6) a letter from Marc Lamson, Director of WW Customer Solutions at APC, dated October 11, 2002; (7) a letter from Patricia Kundl, Benefits Director at APC, dated January 29, 2003; (8) the Employee Stock Purchase Plan History for Shawn Nassaney; (9) the American Power Conversion Corporation Amended and restated 1997 Employee Stock Purchase Plan dated April 22, 2003; (10) the Settlement Memorandum; (11) an interview with Margaret and Patrick Nassaney on July 31, 2006; and (12) the case information form.

My methodology for estimating the losses, which is explained below, is generally based on past wage growth, interest rates, and consumer prices, as well as studies regarding the value of life. The effective net discount rate using statistically average wage growth rates and statistically average discount rates is 0.25 percent.

My estimate of the real wage growth rate is 1.00 percent per year. This growth rate is based on Business Sector, Hourly Compensation growth data from the Major Sector Productivity and Costs Index found at the U.S. Bureau of Labor Statistics website at www.bls.gov/data/home.htm, Series ID: PRS84006103, for the real increase in wages primarily for the last 20 years.

My estimate of the real discount rate is 1.25 percent per year. This discount rate is based on primarily the rate of return on short-term U.S. Treasury investment for the last 20 years. The data is from the statistical series H.15 Selected Interest Rates, published by the Board of Governors of the Federal Reserve System found at www.federalreserve.gov. This data is also published in the Economic Report of the President Table for "Bond yields and interest rates" for the real return on U.S. Treasury investments.

Estimates of real growth and discount rates are net of inflation based on the Consumer Price Index (CPI-U), published in monthly issues of the U.S. Bureau of Labor Statistics, CPI Detailed Report (Washington, D.C.: U.S. Government Printing Office) and available at the U.S. Bureau of Labor Statistics website at www.bls.gov/data/home.htm, Series ID: CUUR0000SA0. The rate of inflation for the past 20 years has been 2.16 percent.

I. LOSS OF WAGES AND EMPLOYEE BENEFITS - Annual Employment

Tables 1 through 9 show the loss of wages and benefits. Mr. Nassaney was a Customer Support Team Leader at American Power Conversion Corporation (APC) at the time of his death. Mr. Nassaney graduated from Bryant College in May of 1998 and began working for APC on June 23, 1998 as an Inside Sales Representative (ISR), and he was promoted to the strategic business development team, which consisted of the company's 4 top-rated ISRs among a pool of over 100. Marc Lamson, Director of WW Customer Solutions states in his letter dated October 11, 2002 that based on Mr. Nassaney's #1 ranking and performance in this role for only 9 months, he was able to obtain an international assignment in Sydney, Australia in December 1999. Patrick Nassaney, Mr. Nassaney's father, states that his son's coworkers told him that he was wasting his time applying for the position in Sydney because he was competing with people with years of seniority for the position. He states that when his son was returning from Sydney, he had two vice presidents that wanted him to work for them, including the vice president in New Zealand

who offered him the sales manager job for the entire South Pacific. After spending a year in Sydney, Mr. Nassaney returned to the headquarters in Rhode Island and accepted the role of Sales Team Leader in the Enterprise Customer Solutions Team in the beginning of 2001.

In the summer of 2001, Mr. Nassaney began the MBA program at Providence College. Patrick Nassaney states that he believes his son completed two MBA courses prior to his death. He states that his son wanted to go into management. His son was the type of person to shot for the stars and look for the quickest path to get there.

Mr. Lamson states that Mr. Nassaney was a hard worker and fast learner and as a result earned promotions to positions of more responsibility faster than all others who started with him. He states that Mr. Nassaney had incredible leadership skills, and he quickly became a formal and informal team leader of every group in which he was involved. His past 3 performance reviews, from 3 different managers, show that he earned the highest performance ranking possible, reserved for the top 5 to 10 percent of the company's 7,000 employees. Mr. Lamson states that Mr. Nassaney was one of the few superstar, and he states that the exceptional skills, knowledge and intense drive placed Mr. Nassaney's career potential with APC, or any other organization, with the top 1 percent of professionals with which he has worked. He states that despite being 5 years older than Mr. Nassaney, he is confident that Mr. Nassaney would have been promoted quickly through APC to be his peer or even higher in a short period of time.

Mr. Roger Dowdell, Jr., CEO and President of APC, states in his letter dated September 9, 2002 that Mr. Nassaney was believed to be on the path to a high level leadership role with APC. He states that many of the executive leaders of the company started in positions similar to Mr. Nassaney's, and the company has a track record of promoting individuals from with the organization, and providing them with career building opportunities well before other organizations may have considered it possible. He states that a large number of individuals how have had the same early career success as Mr. Nassaney have advanced through the organization and received tremendous rewards. He states that as a sales manager, Mr. Nassaney would have been expected to follow a career path that would include periods of time spent in various field based and management roles.

Based on the data from the Radford Sales Survey provided by Mr. Dowdell, a Customer Services Team Leader has an estimated 3 to 5 years of service and an average earnings of $60,068 in year 2001 dollars. A District Manager (Sales Account Manager) has an estimated 5 to 7 years of services and an average earnings of $118,661 in year 2001 dollars. An EAM (Senior Sales Account

Manager) has an estimated 5 to 7 years of services and an average earnings of $150,780 in year 2001 dollars. A Team Leader (District Sales Exec) has an estimated 5 to 10 years of services and an average earnings of $208,000 in year 2001 dollars. A Sales Executive/VP (Regional Sales Exec) has an estimated 7 to 10 years of services and an average earnings of $268,275 in year 2001 dollars. I conservatively assume Mr. Nassaney would be promoted to next position after the average estimated years of service.

The wage estimate is based on the career path and earnings provided by Mr. Dowdell, CEO and President of APC. The wage estimate in 2001 is illustrated at $60,068 in year 2001 dollars based on the average earnings of a Customer Service Team Leader. After 4 years of service as a Customer Service Team Leader, I assume Mr. Nassaney is promoted to District Manager, and the wage estimate starting in 2005 is illustrated at the average earnings for a District Manager of $118,661 in year 2001 dollars. After 6 years of service as a District Manager, I assume Mr. Nassaney is promoted to EAM, and the wage estimate starting in 2011 is illustrated at the average earnings for an EAM of $118,661 in year 2001 dollars. After 7 years of service as an EAM, I assume Mr. Nassaney is promoted to Team Leader, and the wage estimate starting in 2018 is illustrated at the average earnings for a Team Leader of $150,780 in year 2001 dollars. After 7 years of service as a Team Leader, I assume Mr. Nassaney is promoted to Sales Executive, and the wage estimate starting in 2025 is illustrated at the average earnings for a Sales Executive of $268,275 in year 2001 dollars. Future wages are grown at 1.0 percent real wage growth.

Employee benefit estimates are based on actual benefit information from APC and on data from the U.S. Department of Labor, Bureau of Labor Statistics, Employer Cost of Employee Compensation - December 2018, 2019, found at www.bls.gov/ect. Based on the letter from Patricia Kundl, Benefits Manager, dated January 29, 2003, APC contributed $2,721.48 per year to Mr. Nassaney's medical and dental premiums and $163 per year to Mr. Nassaney's short-term disability policy. Ms. Kundl states that Mr. Nassaney contributed to the APC 401k plan in an amount to get him the full company match of 4.5 percent of his compensation. Mr. Nassaney also received stock options and participated in the Employee Stock Purchase Plan. I have assumed that employee benefits grow at the same rate as wages and are discounted to present value at the same discount rate. Based on Mr. Nassaney's career progress, employee benefits are estimated to decline from 16.0 percent of wages in 2001 to 11.8 percent of wages in 2005, to 10.4 percent of wages in 2011, to 9.0 percent of wages in 2018, and to 8.2 percent of wages in 2025 and thereafter.

Personal consumption is an offset of the income. I use a personal consumption offset based on a study by Ruble, Patton,

and Nelson, "Patton-Nelson Personal Consumption Tables 2011-12," Journal of Legal Economics, Vol. 21, No. 1, 2014, pp. 41-55, based on data from the U.S. Department of Labor, Bureau of Labor Statistics, "Consumer Expenditure Survey, 2011-12," Washington DC, 2012, which shows personal consumption for a single person to be 52.25 percent in 2001, 47.90 percent in 2002, 34.55 percent in 2003, 38.70 percent in 2004, 36.2 percent in 2005, 35.15 percent in 2006 and 2007, 34.1 percent in 2008, and 33.2 percent from 2009 and thereafter.

I assume annual employment each year and show the accumulation through life expectancy. While these tables are calculated through the end of life expectancy, the losses from working through any age can be read off the table.

Based on the above assumptions, my opinion of the wage loss is $12,937,643 ▸ Table 9; this figure assumes work to age 77.7, but the ability to work through any assumed age may be read from Table 9; for example, the loss to age 67 is $9,915,426.

II. LOSS OF HOUSEHOLD/FAMILY HOUSEKEEPING AND HOUSEHOLD MANAGEMENT SERVICES

Tables 10 through 12 show the pecuniary loss of tangible housekeeping chores and household management services. The number of hours of housekeeping and household management services for a single, working male is 10.92 hours per week for under age 45 through 2021, 13.70 hours per week for ages 45 to 54 through 2031, 13.62 hours per week for ages 55 and over through 2043, an for a single, retired male is 19.75 hours per week for ages 62 to 74 through 2051, and 17.32 hours per week for ages 75 and over from 2052 and thereafter. This data is based on the American Time Use Survey published by the Bureau of Labor Statistics, www.bls.gov/tus, usefully summarized in a publication by Expectancy Data, The Dollar Value of A Day: 2017 Dollar Valuation, Shawnee Mission, KS, 2018.

The hourly value of the housekeeping and household management services is based on the mean hourly earnings of carpenters; maintenance and repair workers; painters, construction and maintenance; childcare workers; waiters and waitresses; cooks, private household; laundry and dry-cleaning workers; maids and housekeeping cleaners; landscaping and groundskeeping workers; bookkeeping, accounting and auditing clerks; and taxi drivers and chauffeurs, which is $15.30 per hour in year 2018 dollars. This wage data is based on information from the U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2018 National Occupational Employment and Wage Statistics found at www.bls.gov/oes. This figure is corroborated by the average hourly values published by Expectancy Data, The Dollar Value of A Day: 2017 Dollar Valuation, Shawnee Mission, KS, 2018, which is

also based on the BLS Occupational Employment Statistics. A discussion of these services can be found in the **Household Services Valuation Appendix.** The hourly value of these services grows at the same rate as the wage growth rate discussed above.

I assess such services at their estimated market value which includes a conservative estimate of 50 percent hourly non-wage component reasonably charged by agencies or free-lance individuals who supply such services on a part-time basis, and who are responsible for advertising, hiring and vetting, training, insuring and bonding the part-time service provider, and who are also responsible for pay-related costs such as social security contributions, etc. If a person were to hire a free-lance employee directly instead of going through an agency, then he or she would have to take on the responsibility for all the non-wage costs that the agency would otherwise incur and then charge for. The money the person would pay directly in wages would be only a portion of the total costs. The total costs would include those items discussed above that the agency would otherwise incur.

Adding the non-wage component to the hourly wage is consistent with labor market theory and competitive market behavior. Peer-reviewed economic research supports this theory and shows that the non-wage costs can average up to 300 percent for the wage. See, for example, Cushing, Matthew J. and David I. Rosenbaum, "Valuing Household Services: A New Look at the Replacement Cost Approach," Journal of Legal Economics, Vol 19, No. 1, 2012, pp. 37-60, wherein the authors found that non-wage costs exceed wage costs by 167 percent. This is more than triple the 50 percent non-wage costs amount I use, discussed above. Also see Smith, David A., Stan V. Smith, and Stephanie R. Uhl, "Estimating the Value of Family Household Management Services: Approaches and Markups," Forensic Rehabilitation & Economics, Vol 3, No. 2, 2010, pp. 85-94. According to this research, the statistical probability is 99 percent that the non-wage costs exceed 250 percent of the wage cost. The use of only a 50 percent non-wage cost makes my estimate very conservative, and it far more than compensates for two possible variations: variations in the national wage depending on locality, and variations in different types of services actually performed in the household. Thus even if one or more of the different types of services are not performed, and even if the services are provided in low wage areas, my use of the low, 50 percent non-wage costs more than compensates for these factors.

According to Merry Maids, a national home cleaning service agency, the charges for their services within the largest 100 Metropolitan Statistical Areas with populations of 500,000 and up range from $40 to $65 per hour, averaging $49 per hour, in 2012. This hourly rate reflects non-wage costs of 250 percent of wages, and after adjusting for market factors, is four times the

non-wage costs figure that I use, resulting in an hourly rate of more than double the rate that I use. Thus my use of only a 50 percent addition for non-wage costs is, in fact, very conservative.

Based on these assumptions, and Shawn Nassaney's life expectancy of 77.7 years, my opinion of the loss of the value of housekeeping and household management services is $885,561 ▸ Table 12.

III. LOSS OF VALUE OF LIFE

Tables 13 through 15 show the loss of the value of life. Economists have long agreed that life is valued at more than the lost earnings capacity. My estimate of the value of life is based on many economic studies on what we, as a contemporary society, actually pay to preserve the ability to lead a normal life. The studies examine incremental pay for risky occupations as well as a multitude of data regarding expenditure for life savings by individuals, industry, and state and federal agencies. Based on the average value of a statistical life and life expectancy of 77.7 years, my opinion of the loss of the value of life for Shawn Nassaney is $6,262,396 ▸ Table 15.

My estimate of the value of life is consistent with estimates published in other studies that examine and review the broad spectrum of economic literature on the value of life. Among these is "The Plausible Range for the Value of Life," Journal of Forensic Economics, Vol. 3, No. 3, Fall 1990, pp. 17-39, by T. R. Miller. This study reviews 67 different estimates of the value of life published by economists in peer-reviewed academic journals. The Miller results, in most instances, show the value of life to range from approximately $1.6 million to $2.9 million dollars in year 1988 after-tax dollars, with a mean of approximately $2.2 million dollars. In "The Value of Life: Estimates with Risks by Occupation and Industry," Economic Inquiry, Vol. 42, No. 1, May 2003, pp. 29-48, Professor W. K. Viscusi estimates the value of life to be approximately $4.7 million dollars in year 2000 dollars. An early seminal paper on the value of life was written by Richard Thaler and Sherwin Rosen, "The Value of Saving a Life: Evidence from the Labor Market." in N.E. Terlickyj (ed.), Household Production and Consumption. New York: Columbia University Press, 1975, pp. 265-300. The Meta-Analyses Appendix to this report reviews additional literature suggesting a value of life of approximately $5.4 million in year 2008 dollars.

Because it is generally accepted by economists, the economic methodology for the valuation of life has been found to meet the Daubert and Frye standards by many courts, along with the Rules of Evidence in many states nationwide. My testimony on the value

of life has been accepted in approximately 225 state and federal cases nationwide in approximately two-thirds of the states and two-thirds of the federal jurisdictions. Testimony has been accepted by U.S. district and appellate courts as well as in state circuit, appellate, and supreme courts. Proof of general acceptance and other standards is found in a discussion of the extensive references to the scientific economic peer-reviewed literature on the value of life listed in the **Value of Life Appendix** to this report.

The underlying, academic, peer-reviewed studies fall into two general groups: (1) consumer behavior and purchases of safety devices; (2) wage risk premiums to workers; in addition, there is a third group of studies consisting of cost-benefit analyses of regulations. For example, one consumer safety study analyzes the costs of smoke detectors and the lifesaving reduction associated with them. One wage premium study examines the differential rates of pay for dangerous occupations with a risk of death on the job. Just as workers receive shift premiums for undesirable work hours, workers also receive a higher rate of pay to accept a increased risk of death on the job. A study of government regulation examines the lifesaving resulting from the installation of smoke stack scrubbers at high-sulphur, coal-burning power plants. As a hypothetical example of the methodology, assume that a safety device such as a carbon monoxide detector costs $46 and results in lowering a person's risk of premature death by one chance in 100,000. The cost per life saved is obtained by dividing $46 by the one in 100,000 probability, yielding $4,600,000. Overall, based on the peer-reviewed economic literature, I estimate the central tendency of the range of the economic studies to be approximately $4.9 million in year 2019 dollars.

Other factors may be weighed to determine if these estimated losses for Shawn Nassaney should be adjusted because of special qualities or circumstances that economists do not as yet have a methodology for analysis.

In each set of tables, the estimated losses are calculated from September 11, 2001 through an assumed trial or resolution date of January 1, 2020, and from that date thereafter. The last table in each set accumulates the past and future estimated losses. These estimates are provided as a tool, an aid, and a guide to assist the evaluation by others.

All opinions expressed in this report are clearly labeled as such. They are rendered in accordance with generally accepted standards within the field of economics and are expressed to a reasonable degree of economic certainty. Estimates, assumptions, illustrations and the use of benchmarks, which are not opinions,

but which can be viewed as hypothetical in nature, are also clearly disclosed and identified herein.

In my opinion, it is reasonable for experts in the field of economics and finance to rely on the materials and information I reviewed in this case for the formulation of my substantive opinions herein.

If additional information is provided to me, which could alter my opinions, I may incorporate any such information into an update, revision, addendum, or supplement of the opinions expressed in this report.

If you have any questions, please do not hesitate to call me.

Sincerely,

Stan V. Smith, Ph.D.
President

APPENDIX: HOUSEHOLD SERVICES VALUATION

Courts have long recognized claims for the value of tangible household family services as an element of damages in personal injury and wrongful death cases, as an aspect of the pecuniary loss in such cases. These services are those that are provided by the injured family member to himself or herself and to other family members, without charge or cost. Other family members who may receive such services can include spouses, children, parents or siblings; such family members do not necessarily have to reside in the same household to receive such services.

Economists and courts have also long recognized that an appropriate method in valuing such tangible services is to value their estimated market-based costs by examining costs paid in labor markets that provide generally comparable services for. Thus, economists can value the service by looking at market equivalents from which a pecuniary standard can be established. This approach is set forth in the 1913 U.S.Supreme Court Decision, Michigan Central Railroad Company v. Vreeland, 227 U.S. 59 (1913). So this method is a century old.

The Supreme Court's suggesting in valuing compensable services in the Vreeland decision is a standard that is not rigid, but actually rather general: "[The] pecuniary loss or damage must be one which can be measured by some standard.... Compensation for such loss manifestly does not include damages by way of recompense for grief or wounded feelings." Michigan Central v. Vreeland.

Examples of lost household services that used to be performed by persons (whether fatally or non-fatally injured) can include physical chores such as mowing the lawn, painting the house, cleaning the windows, doing the laundry, washing and repairing the car, preparing the meals and doing the dishes, among others. For many decades economists have met the Supreme Court's general standard by using labor market equivalents for cooks, laundry workers, gardeners, maids, etc. in valuing the physical chores regarding housekeeping services.

Additionally, economists have recognized that tangible services to family members include services well beyond the physical housekeeping chores. For example, William G. Jungbauer and Mark J. Odegard, in Maximizing Recovery in FELA Wrongful Death Actions, in Assessing Family Loss in Wrongful Death Litigation: The Special Roles of Lost Services and Personal Consumption, Lawyers & Judges Publishing Co., 1999, pp. 284, indicate that a complete analysis of all services performed by family members includes much, much more than the physical housekeeping chores. Frank D. Tinari, in a peer-reviewed, scientific, economic journal article "Household Services: Toward a More Comprehensive Measure," Journal of Forensic Economics, Vol. 11, No. 3, Fall

1998, pp. 253-265, expresses the same view. Dr. Tinari has been a tenured Professor at Seton Hall University, and is a former president of the National Association of Forensic Economics. There has been no peer-reviewed critique of this article since it appeared.

Jungbauer and Odegard indicate that a person may have provided services of many other professions such as that of a chauffeur, driving other family members to appointments, or that of a security guard, especially regarding the injury to a male spouse, etc. Every family member acts as a companion to other family members. And it is common for family members to act as counselors for one another, typically providing advice and counsel on important personal, family, medical, financial, career or other issues. The marketplace can and does value such items of loss. If the person cannot provide these services, or does so at a reduced capacity or rate, there is a distinct and definite loss to the other family members. These losses have a definite and easily measurable pecuniary value. Vreeland requires only that a "reasonable expectation" of loss of services be proven and that such loss be valued by some standard, presumably a reasonably-based economic standard, to allow recovery.

The economic literature on recovery of loss of services discusses an estimated market-oriented valuation cost method to assess the pecuniary value of the loss of accompaniment services, as well as the value of advice, guidance and counsel services that family members provide to one another, within a broadly defined scope of family services. See, for example, Frank D. Tinari, "Household Services: Toward a More Comprehensive Measure, " Journal of Forensic Economics, Vol. 11, No. 3, Fall 1998, pp. 253-265.

Finally, according to Chief Justice Robert Wilentz of the Supreme Court of New Jersey, in Green v. Bittner, 85 NJ 1, 1980, pp. 12, accompaniment services, to be compensable, must be that which would have provided services substantially equivalent to those provided by the companions often hired today by the aged or infirm, or substantially equivalent to services provided by nurses or practical nurses; and its value must be confined to what the marketplace would pay a stranger with similar qualifications for performing such services.

In valuing the household services that are provided by family members to one another, beyond the physical housekeeping chores, both the U.S Supreme Court and the New Jersey Supreme Court discuss looking at labor markets for the equivalent value of such services. This methodology is identical to the traditional approach that economists have been using for over four decades in valuing the physical chores involved in housekeeping services. 5206

APPENDIX: VALUE OF LIFE

The economic methodology for the valuation of life has been found to meet the Daubert and Frye standards by many courts, along with the Rules of Evidence in many states nationwide. My testimony on the value of life has been accepted in approximately 225 state and federal cases nationwide in approximately two-thirds of the states and two-thirds of the federal jurisdictions. Testimony has been accepted by U.S. district and appellate courts as well as in state circuit, appellate, and supreme courts. The Daubert standard sets forth four criteria:

1. Testing of the theory and science

2. Peer Review

3. Known or potential rate of error

4. Generally accepted.

Testing of the theory and science has been accomplished over the past four decades, since the 1960s. Dozens of economists of high renown have published over a hundred articles in high quality, peer-reviewed economic journals measuring the value of life. The value of life theories are perhaps among the most well-tested in the field of economics, as evidenced by the enormous body of economic scientific literature that has been published in the field and is discussed below.

Peer Review of the concepts and methodology have been extraordinarily extensive. One excellent review of this extensive, peer-reviewed literature can be found in "The Value of Risks to Life and Health," W. K. Viscusi, Journal of Economic Literature, Vol. 31, December 1993, pp. 1912-1946. A second is "The Value of a Statistical Life: A Critical Review of Market Estimates throughout the World." W. K. Viscusi and J. E. Aldy, Journal of Risk and Uncertainty, Vol. 27, No. 1, November 2002, pp. 5-76. Additional theoretical and empirical work by Viscusi, a leading researcher in the field, can be found in: "The Value of Life", W. K. Viscusi, John M. Olin Center for Law, Economics, and Business, Harvard Law School, Discussion Paper No. 517, June 2005. An additional peer-reviewed article discusses the application to forensic economics: "The Plausible Range for the Value of Life," T. R. Miller, Journal of Forensic Economics, Vol. 3, No. 3, Fall 1990, pp. 17-39, which discusses the many dozens of articles published in other peer-reviewed economic journals on this topic. This concept is discussed in detail in "Willingness to Pay Comes of Age: Will the System Survive?" T. R. Miller, Northwestern University Law Review, Summer 1989, pp. 876-907, and "Hedonic Damages in Personal Injury and Wrongful Death

Litigation," by Stan V. Smith in Gaughan and Thornton, eds., Litigation Economics, Contemporary Studies in Economic and Financial Analysis, Vol. 74, pp. 39-59, JAI Press, Greenwich, CT, 1993. Kenneth Arrow, a Nobel Laureate in economics, discusses this method for valuing life in "Invaluable Goods," Journal of Economic Literature, Vol. 35, No. 2, 1997, pp. 759. See the Meta-Analyses Appendix for an additional review of the literature.

The known or potential rate of error is well researched. All of these articles discuss the known or potential rate of error, well within the acceptable standard in the field of economics, generally using a 95% confidence rate for the statistical testing and acceptance of results. There are few areas in the field of economics where the known or potential rate of error has been as well-accepted and subject to more extensive investigation.

General Acceptance of the concepts and methodology on the value of life in the field of economics is extensive. This methodology is and has been generally accepted in the field of economics for many years. Indeed, according to the prestigious and highly-regarded research institute, The Rand Corporation, by 1988, the peer-reviewed scientific methods for estimating the value of life were well-accepted: "Most economists would agree that the willingness-to-pay methodology is the most conceptually appropriate criterion for establishing the value of life," Computing Economic loss in Cases of Wrongful Death, King and Smith, Rand Institute for Civil Justice, R-3549-ICJ, 1988.

While first discussed in cutting edge, peer-reviewed economic journals, additional proof of general acceptance is now indicated by the fact that this methodology is now taught in standard economics courses at the undergraduate and graduate level throughout hundreds of colleges and universities nationwide as well as the fact that it is taught and discussed in widely-accepted textbooks in the field of law and economics: Economics, Sixth Edition, David C. Colander, McGraw-Hill Irwin, Boston, 2006, pp. 463-465; this introductory economics textbook is the third most widely used textbook in college courses nationwide. Hamermesh and Rees's The Economics of Work and Pay, Harper-Collins, 1993, Chapter 13, a standard advanced textbook in labor economics, also discusses the methodology for valuing life. Other textbooks discuss this topic as well. Richard Posner, a Judge and former Chief Judge of the U.S. Court of Appeals for the highly regarded 7th Circuit and Senior Lecturer at the University of Chicago Law School, one of most prolific legal writers in America, details the Value of Life approach in his widely used textbooks: Economic Analysis of Law, 1986, Little Brown & Co., pp. 182-185 and Tort Law, 1982, Little Brown & Co., pp. 120-126.

As further evidence of general acceptance in the field, some surveys (albeit non-scientific) published in the field of

forensic economics show that hundreds of economists nationwide are now familiar with this methodology and are available to prepare (and critique) forensic economic value of life estimates. Indeed, some economists who indicate they will prepare such analysis for plaintiffs also are willing to critique such analysis for defendants, as I have done. That an economist is willing to critique a report does not indicate that he or she is opposed to the concept or the methodology, but merely available to assure that the plaintiff economist has employed proper techniques. The fact that there are economists who indicate they do not prepare estimates of value of life is again no indication that they oppose the methodology: many claim they are not familiar with the literature and untrained in this area. While some CPAs and others without a degree in economics have opposed these methods, such professionals do not have the requisite academic training and are unqualified to make such judgements. However, as in any field of economics, this area is not without any dissent. General acceptance does not mean universal acceptance.

Additional evidence of general acceptance in the field is found in the teaching of the concepts regarding the value of life. Forensic Economics is now taught as a special field in a number of institutions nationwide. I taught what is believed to be the first course ever presented in the field of Forensic Economics at DePaul University in Spring, 1990. My own book, Economic/Hedonic Damages, Anderson, 1990, and supplemental updates thereto, co-authored with Dr. Michael Brookshire, a Professor of Economics in West Virginia, has been used as a textbook in at least 5 colleges and universities nationwide in such courses in economics, and has a thorough discussion of the methodology. Toppino et. al., in "Forensic Economics in the Classroom," published in The Earnings Analyst, Journal of the American Rehabilitation Economics Association, Vol. 4, 2001, pp. 53-86, indicate that hedonic damages is one of 15 major topic areas taught in such courses.

Lastly, general acceptance is found by examining publications in the primary journal in the field of Forensic Economics, which is the peer-reviewed Journal of Forensic Economics, where there have been published many articles on the value of life. Some are cited above. Others include: "The Econometric Basis for Estimates of the Value of Life," W. K. Viscusi, Vol 3, No. 3, Fall 1990, pp. 61-70; "Hedonic Damages in the Courtroom Setting." Stan V. Smith, Vol. 3, No. 3, Fall 1990, pp. 41-49; "Issues Affecting the Calculated Value of Life," E. P. Berla, M. L. Brookshire and Stan V. Smith, Vol 3, No. 1, 1990, pp. 1-8; "Hedonic Damages and Personal Injury: A Conceptual Approach." G. R. Albrecht, Vol. 5., No. 2, Spring/Summer 1992, pp. 97-104; "The Application of the Hedonic Damages Concept to Wrongful and Personal Injury Litigation." G. R. Albrecht, Vol. 7, No. 2, Spring/Summer 1994, pp. 143-150; and also "A Review of the Monte Carlo Evidence Concerning Hedonic Value of Life Estimates," R. F.

Gilbert, Vol. 8, No. 2, Spring/Summer 1995, pp. 125-130. Professor Ike Mathur, while Chairman of the Department of Finance at Southern Illinois University wrote an article on how the value of life studies can be used to provide a basis for estimating the value of life per year in application to litigation. This article corroborates my approach: "Estimating Value of Life per Life Year." I. Mathur, Journal of Forensic Economics, Vol. 3, No. 3, 1990, pp. 95-96. As do many of the authors of applications of the value of life literature to litigation economics, Professor Mathur has frequently testified in court, and courts have admitted his testimony.

It is important to note that this methodology is endorsed and employed by the U. S. Government as the standard and recommended approach for use by all U. S. Agencies in valuing life for policy purposes, as mandated in current and past Presidential Executive Orders in effect since 1972, and as discussed in "Report to Congress on the Costs and Benefits of Federal Regulations," Office of Management and Budget, 1998, and "Economic Analysis of Federal Regulations Under Executive Order 12866," Executive Office of the President, Office of Management and Budget, pp. 1-37, and "Report to the President on Executive Order No. 12866," Regulatory Planning and Review, May 1, 1994, Office of Information and Regulatory Affairs, Office of Management and Budget. Prior presidents signed similar orders as discussed in "Federal Agency Valuations of Human life," Administrative Conference of the United States, Report for Recommendation 88-7, December 1988, pp. 368-408. 926

APPENDIX: META-ANALYSES AND VALUE OF LIFE RESULTS SINCE 2000

Below I list the principal systematic reviews (meta-analyses), since the year 2000, of the value of life literature, and the values of a statistical life that they recommend. In statistics, a meta-analysis combines the results of several studies that address a set of related research hypotheses. Meta-analysis increase the statistical power of studies by analyzing a group of studies and provide a more powerful and accurate data analysis than would result from analyzing each study alone. Based on those reviews, the Summary Table suggests a best estimate. The following table summarizes the studies and their findings.

These statistically based studies place the value between $4.4 and $7.5 million, with $5.9 million in year 2005 dollars representing a conservative yet credible estimate of the average (and range midpoint) of the values of a statistical life published in the studies in year 2005 dollars. Net of human capital, a credible net value of life based on all these literature reviews to be $4.8 million in year 2005 dollars, or $5.4 million in year 2008 dollars.

The actual value that I use, $4.1 million in year 2008 dollars ($4.9 million in year 2019 dollars) is approximately 24 percent lower than a conservative average estimate based on the credible meta-analyses. This value was originally based on a review conducted in the late 1980s, averaging the results published by that time. I have increased that late 1980s value only by inflation over time, despite the fact a review of literature over the years since that time has put obvious upward pressure on the figure that I use.

VALUE OF STATISTICAL LIFE SUMMARY TABLE

Mean and range of value of statistical life estimates (in 2005 dollars) from the best meta-analyses and systematic reviews since 2000 and characteristics of those reviews.

Study	Formal Meta-Analysis?	Number of Values	Best Estimate (2005 Dollars)	Range	Context
Miller 2000	Yes	68 estimates	$5.1M	$4.5-$6.2M	US estimate from all
Mrozek & Taylor 2002	Yes	203 estimates	$4.4M	+ or - 35%	Labor market
Viscusi & Aldy 2003	Yes	49 estimates	$6.5M	$5.1-$9.6M	Labor market, US estimate from all
Kochi et al. 2006	Yes	234 estimates	$6.0M	+ or - 44%	Labor market survey
Bellavance 2006 (published in 2009)	Yes	37 estimates	$7.5M	+ or - 19%	Labor market

Adapted from Ted R. Miller's paper "Hedonic Damages," Journal of Forensic Economics, Vol. 20, No. 2 (October 2008), pp. 137-153.

Miller (2000) started from the Miller 1989 JFE estimates and used statistical methods to adjust for differences between studies. It also added newer studies, primarily ones outside the United States. The authors specified the most appropriate study approach a priori, which allowed calculation of a best estimate from the statistical regression. Miller, Ted R, "Variations between Countries in Values of Statistical Life", Journal of Transport Economics and Policy, Vol. 34, No. 2 (May 2000), pp. 169-188.

Mrozek and Taylor (2002) searched intensively for studies of the value of life implied by wages paid for risky jobs. They coded all values from each study rather than a most appropriate estimate. A statistical analysis identified what factors accounted for the differences in values between studies. The authors specified the most appropriate study approach a priori, which allowed calculation of a best estimate from the statistical regression. Mrozek, Janusz R. and Laura O. Taylor, "What Determines the Value of Life? A Meta-Analysis", Journal of Policy Analysis and Management, Vol. 21, No. 2 (2002), pp. 253-270.

Viscusi and Aldy (2003) focused on values from labor market studies that they considered of high quality and that provided data on risk levels and other important explanatory variables. They used statistical methods to account for variations between studies and derive a best estimate. W.K. Viscusi and J.E. Aldy, "The Value of a Statistical Life: A Critical Review of Market Estimates Throughout the World", Journal of Risk and Uncertainty, Vol. 27, No. 1 (2003), pp. 5-76.

Kochi et al. (2006) searched intensively for studies of the value of life implied by wages and coded all values from each study rather than a most appropriate estimate. They did not filter study quality carefully. The best estimate was derived by statistical methods based on the distribution of the values within and across studies. Kochi, Ikuho, Bryan Hubbell, and Randall Kramer, "An Empirical Bayes Approach to Combining and Comparing Estimates of the Value of a Statistical Life for Environmental Policy Analysis", Environmental and Resource Economics, Vol. 34 (2006), pp. 385-406.

Bellavance et al. (2009) focused on values from labor market studies that they considered of high quality and that provided data on risk levels and other important explanatory variables. They used statistical methods to account for variations between studies and derive a best estimate. Bellavance, Francois, Georges Dionne, and Martin Lebeau, "The Value of a Statistical Life: A Meta-Analysis with a Mixed Effects Regression Model," Journal of Health Economics, Vol. 28, Issue 2, (2009), pp. 444-464. 3A22

SUMMARY OF LOSSES FOR SHAWN NASSANEY

TABLE	DESCRIPTION	ESTIMATE
*****	**********	**********
	EARNINGS	
	LOSS OF WAGES & BENEFITS, NET OF PERSONAL CONSUMPTION	
9	Annual Employment to age 67	$9,915,426
	HOUSEHOLD/FAMILY SERVICES	
12	LOSS OF HOUSEHOLD/FAMILY HOUSEKEEPING AND HOME MANAGEMENT SERVICES	$ 885,561
	LOSS OF ENJOYMENT OF LIFE	
15	LOSS OF VALUE OF LIFE	$6,262,396

The information on this Summary of Losses is intended to summarize losses under certain given assumptions. Please refer to the report and the tables for all the opinions.

Table 1

LOSS OF PAST WAGES
2001 - 2019

YEAR	AGE	WAGES	CUMULATE
****	***	**********	**********
2001	25	$18,267	$18,267
2002	26	73,837	92,104
2003	27	90,760	182,864
2004	28	111,562	294,426
2005	29	137,140	431,566
2006	30	145,972	577,538
2007	31	155,373	732,911
2008	32	165,379	898,290
2009	33	176,029	1,074,319
2010	34	187,365	1,261,684
2011	35	199,443	1,461,127
2012	36	214,461	1,675,588
2013	37	230,610	1,906,198
2014	38	247,975	2,154,173
2015	39	266,648	2,420,821
2016	40	286,727	2,707,548
2017	41	308,318	3,015,866
2018	42	331,486	3,347,352
2019	43	348,160	$3,695,512
NASSANEY		$3,695,512	

Table 2

LOSS OF PAST EMPLOYEE BENEFITS
2001 - 2019

YEAR	AGE	EMPLOYEE BENEFITS	CUMULATE
****	***	********	********
2001	25	$2,923	$2,923
2002	26	11,076	13,999
2003	27	12,616	26,615
2004	28	14,391	41,006
2005	29	16,183	57,189
2006	30	16,933	74,122
2007	31	17,557	91,679
2008	32	18,357	110,036
2009	33	19,187	129,223
2010	34	19,861	149,084
2011	35	20,742	169,826
2012	36	21,875	191,701
2013	37	23,061	214,762
2014	38	24,302	239,064
2015	39	25,598	264,662
2016	40	26,952	291,614
2017	41	28,365	319,979
2018	42	29,834	349,813
2019	43	30,986	$380,799
NASSANEY		$380,799	

Table 3

LOSS OF PAST PERSONAL CONSUMPTION
2001 - 2019

YEAR	AGE	PERSONAL CONSUMPTION	CUMULATE
****	***	**********	**********
2001	25	-$11,070	-$11,070
2002	26	-40,684	-51,754
2003	27	-45,017	-96,771
2004	28	-48,753	-145,524
2005	29	-55,542	-201,066
2006	30	-57,221	-258,287
2007	31	-60,751	-319,038
2008	32	-62,679	-381,717
2009	33	-64,779	-446,496
2010	34	-68,763	-515,259
2011	35	-73,196	-588,455
2012	36	-78,493	-666,948
2013	37	-84,173	-751,121
2014	38	-90,511	-841,632
2015	39	-97,060	-938,692
2016	40	-104,082	-1,042,774
2017	41	-111,919	-1,154,693
2018	42	-119,998	-1,274,691
2019	43	-126,034	-$1,400,725
NASSANEY		-$1,400,725	

Table 4

ECONOMIC LOSS TO DATE
2001 - 2019

YEAR	AGE	WAGES	EMPLOYEE BENEFITS	PERSONAL CONSUMPTION	TOTAL	CUMULATE
****	***	**********	********	**********	**********	**********
2001	25	$18,267	$2,923	-$11,070	$10,120	$10,120
2002	26	73,837	11,076	-40,684	44,229	54,349
2003	27	90,760	12,616	-45,017	58,359	112,708
2004	28	111,562	14,391	-48,753	77,200	189,908
2005	29	137,140	16,183	-55,542	97,781	287,689
2006	30	145,972	16,933	-57,221	105,684	393,373
2007	31	155,373	17,557	-60,751	112,179	505,552
2008	32	165,379	18,357	-62,679	121,057	626,609
2009	33	176,029	19,187	-64,779	130,437	757,046
2010	34	187,365	19,861	-68,763	138,463	895,509
2011	35	199,443	20,742	-73,196	146,989	1,042,498
2012	36	214,461	21,875	-78,493	157,843	1,200,341
2013	37	230,610	23,061	-84,173	169,498	1,369,839
2014	38	247,975	24,302	-90,511	181,766	1,551,605
2015	39	266,648	25,598	-97,060	195,186	1,746,791
2016	40	286,727	26,952	-104,082	209,597	1,956,388
2017	41	308,318	28,365	-111,919	224,764	2,181,152
2018	42	331,486	29,834	-119,998	241,322	2,422,474
2019	43	348,160	30,986	-126,034	253,112	$2,675,586
NASSANEY		$3,695,512	$380,799	-$1,400,725	$2,675,586	

Table 5

PRESENT VALUE OF FUTURE WAGES
2020 - 2054

YEAR	AGE	WAGES	DISCOUNT FACTOR	PRESENT VALUE	CUMULATE
****	***	********	********	**********	**********
2020	44	$365,672	0.98765	$361,156	$361,156
2021	45	384,065	0.97546	374,640	735,796
2022	46	403,383	0.96342	388,627	1,124,423
2023	47	423,673	0.95152	403,133	1,527,556
2024	48	444,984	0.93978	418,187	1,945,743
2025	49	467,463	0.92817	433,885	2,379,628
2026	50	472,138	0.91672	432,818	2,812,446
2027	51	476,859	0.90540	431,748	3,244,194
2028	52	481,628	0.89422	430,681	3,674,875
2029	53	486,444	0.88318	429,618	4,104,493
2030	54	491,308	0.87228	428,558	4,533,051
2031	55	496,221	0.86151	427,499	4,960,550
2032	56	501,183	0.85087	426,442	5,386,992
2033	57	506,195	0.84037	425,391	5,812,383
2034	58	511,257	0.82999	424,338	6,236,721
2035	59	516,370	0.81975	423,294	6,660,015
2036	60	521,534	0.80963	422,250	7,082,265
2037	61	526,749	0.79963	421,204	7,503,469
2038	62	532,016	0.78976	420,165	7,923,634
2039	63	537,336	0.78001	419,127	8,342,761
2040	64	542,709	0.77038	418,092	8,760,853
2041	65	548,136	0.76087	417,060	9,177,913
2042	66	553,617	0.75147	416,027	9,593,940
2043	67	559,153	0.74220	415,003	10,008,943
2044	68	564,745	0.73303	413,975	10,422,918
2045	69	570,392	0.72398	412,952	10,835,870
2046	70	576,096	0.71505	411,937	11,247,807
2047	71	581,857	0.70622	410,919	11,658,726
2048	72	587,676	0.69750	409,904	12,068,630
2049	73	593,553	0.68889	408,893	12,477,523
2050	74	599,489	0.68038	407,880	12,885,403
2051	75	605,484	0.67198	406,873	13,292,276
2052	76	611,539	0.66369	405,872	13,698,148
2053	77	617,654	0.65549	404,866	14,103,014
2054	78	131,603	0.65377	86,038	$14,189,052

SHAWN NASSANEY $14,189,052

Table 6

PRESENT VALUE OF FUTURE EMPLOYEE BENEFITS
2020 - 2054

YEAR	AGE	EMPLOYEE BENEFITS	DISCOUNT FACTOR	PRESENT VALUE	CUMULATE
****	***	********	********	**********	**********
2020	44	$32,179	0.98765	$31,782	$31,782
2021	45	33,030	0.97546	32,219	64,001
2022	46	34,288	0.96342	33,034	97,035
2023	47	35,589	0.95152	33,864	130,899
2024	48	36,934	0.93978	34,710	165,609
2025	49	38,332	0.92817	35,579	201,188
2026	50	38,715	0.91672	35,491	236,679
2027	51	39,102	0.90540	35,403	272,082
2028	52	39,493	0.89422	35,315	307,397
2029	53	39,888	0.88318	35,228	342,625
2030	54	40,287	0.87228	35,142	377,767
2031	55	40,690	0.86151	35,055	412,822
2032	56	41,097	0.85087	34,968	447,790
2033	57	41,508	0.84037	34,882	482,672
2034	58	41,923	0.82999	34,796	517,468
2035	59	42,342	0.81975	34,710	552,178
2036	60	42,766	0.80963	34,625	586,803
2037	61	43,193	0.79963	34,538	621,341
2038	62	43,625	0.78976	34,453	655,794
2039	63	44,062	0.78001	34,369	690,163
2040	64	44,502	0.77038	34,283	724,446
2041	65	44,947	0.76087	34,199	758,645
2042	66	45,397	0.75147	34,114	792,759
2043	67	45,851	0.74220	34,031	826,790
2044	68	46,309	0.73303	33,946	860,736
2045	69	46,772	0.72398	33,862	894,598
2046	70	47,240	0.71505	33,779	928,377
2047	71	47,712	0.70622	33,695	962,072
2048	72	48,189	0.69750	33,612	995,684
2049	73	48,671	0.68889	33,529	1,029,213
2050	74	49,158	0.68038	33,446	1,062,659
2051	75	49,650	0.67198	33,364	1,096,023
2052	76	50,146	0.66369	33,281	1,129,304
2053	77	50,648	0.65549	33,199	1,162,503
2054	78	10,791	0.65377	7,055	$1,169,558
SHAWN NASSANEY				$1,169,558	

Table 7

PRESENT VALUE OF FUTURE PERSONAL CONSUMPTION
2020 - 2054

YEAR	AGE	PERSONAL CONSUMPTION	DISCOUNT FACTOR	PRESENT VALUE	CUMULATE
2020	44	-$132,008	0.98765	-$130,378	-$130,378
2021	45	-138,647	0.97546	-135,245	-265,623
2022	46	-145,218	0.96342	-139,906	-405,529
2023	47	-152,522	0.95152	-145,128	-550,657
2024	48	-160,194	0.93978	-150,547	-701,204
2025	49	-167,819	0.92817	-155,765	-856,969
2026	50	-169,498	0.91672	-155,382	-1,012,351
2027	51	-171,192	0.90540	-154,997	-1,167,348
2028	52	-172,904	0.89422	-154,614	-1,321,962
2029	53	-174,633	0.88318	-154,232	-1,476,194
2030	54	-176,380	0.87228	-153,853	-1,630,047
2031	55	-178,143	0.86151	-153,472	-1,783,519
2032	56	-179,925	0.85087	-153,093	-1,936,612
2033	57	-181,724	0.84037	-152,715	-2,089,327
2034	58	-183,541	0.82999	-152,337	-2,241,664
2035	59	-185,377	0.81975	-151,963	-2,393,627
2036	60	-187,231	0.80963	-151,588	-2,545,215
2037	61	-189,103	0.79963	-151,212	-2,696,427
2038	62	-190,994	0.78976	-150,839	-2,847,266
2039	63	-192,904	0.78001	-150,467	-2,997,733
2040	64	-194,833	0.77038	-150,095	-3,147,828
2041	65	-196,781	0.76087	-149,725	-3,297,553
2042	66	-198,749	0.75147	-149,354	-3,446,907
2043	67	-200,736	0.74220	-148,986	-3,595,893
2044	68	-202,743	0.73303	-148,617	-3,744,510
2045	69	-204,771	0.72398	-148,250	-3,892,760
2046	70	-206,818	0.71505	-147,885	-4,040,645
2047	71	-208,887	0.70622	-147,520	-4,188,165
2048	72	-210,976	0.69750	-147,156	-4,335,321
2049	73	-213,086	0.68889	-146,793	-4,482,114
2050	74	-215,217	0.68038	-146,429	-4,628,543
2051	75	-217,369	0.67198	-146,068	-4,774,611
2052	76	-219,543	0.66369	-145,708	-4,920,319
2053	77	-221,738	0.65549	-145,347	-5,065,666
2054	78	-47,245	0.65377	-30,887	-$5,096,553

SHAWN NASSANEY -$5,096,553

Table 8

PRESENT VALUE OF FUTURE WAGE AND BENEFIT LOSS
2020 - 2054

YEAR	AGE	WAGES	EMPLOYEE BENEFITS	PERSONAL CONSUMPTION	TOTAL	CUMULATE
****	***	**********	**********	**********	**********	**********
2020	44	$361,156	$31,782	-$130,378	$262,560	$262,560
2021	45	374,640	32,219	-135,245	271,614	534,174
2022	46	388,627	33,034	-139,906	281,755	815,929
2023	47	403,133	33,864	-145,128	291,869	1,107,798
2024	48	418,187	34,710	-150,547	302,350	1,410,148
2025	49	433,885	35,579	-155,765	313,699	1,723,847
2026	50	432,818	35,491	-155,382	312,927	2,036,774
2027	51	431,748	35,403	-154,997	312,154	2,348,928
2028	52	430,681	35,315	-154,614	311,382	2,660,310
2029	53	429,618	35,228	-154,232	310,614	2,970,924
2030	54	428,558	35,142	-153,853	309,847	3,280,771
2031	55	427,499	35,055	-153,472	309,082	3,589,853
2032	56	426,442	34,968	-153,093	308,317	3,898,170
2033	57	425,391	34,882	-152,715	307,558	4,205,728
2034	58	424,338	34,796	-152,337	306,797	4,512,525
2035	59	423,294	34,710	-151,963	306,041	4,818,566
2036	60	422,250	34,625	-151,588	305,287	5,123,853
2037	61	421,204	34,538	-151,212	304,530	5,428,383
2038	62	420,165	34,453	-150,839	303,779	5,732,162
2039	63	419,127	34,369	-150,467	303,029	6,035,191
2040	64	418,092	34,283	-150,095	302,280	6,337,471
2041	65	417,060	34,199	-149,725	301,534	6,639,005
2042	66	416,027	34,114	-149,354	300,787	6,939,792
2043	67	415,003	34,031	-148,986	300,048	7,239,840
2044	68	413,975	33,946	-148,617	299,304	7,539,144
2045	69	412,952	33,862	-148,250	298,564	7,837,708
2046	70	411,937	33,779	-147,885	297,831	8,135,539
2047	71	410,919	33,695	-147,520	297,094	8,432,633
2048	72	409,904	33,612	-147,156	296,360	8,728,993
2049	73	408,893	33,529	-146,793	295,629	9,024,622
2050	74	407,880	33,446	-146,429	294,897	9,319,519
2051	75	406,873	33,364	-146,068	294,169	9,613,688
2052	76	405,872	33,281	-145,708	293,445	9,907,133
2053	77	404,866	33,199	-145,347	292,718	10,199,851
2054	78	86,038	7,055	-30,887	62,206	$10,262,057
NASSANEY		$14,189,052	$1,169,558	-$5,096,553	$10,262,057	

Table 9

PRESENT VALUE OF NET WAGE AND BENEFIT LOSS
2001 - 2054

YEAR	AGE	WAGES	EMPLOYEE BENEFITS	PERSONAL CONSUMPTION	TOTAL	CUMULATE
2001	25	$18,267	$2,923	-$11,070	$10,120	$10,120
2002	26	73,837	11,076	-40,684	44,229	54,349
2003	27	90,760	12,616	-45,017	58,359	112,708
2004	28	111,562	14,391	-48,753	77,200	189,908
2005	29	137,140	16,183	-55,542	97,781	287,689
2006	30	145,972	16,933	-57,221	105,684	393,373
2007	31	155,373	17,557	-60,751	112,179	505,552
2008	32	165,379	18,357	-62,679	121,057	626,609
2009	33	176,029	19,187	-64,779	130,437	757,046
2010	34	187,365	19,861	-68,763	138,463	895,509
2011	35	199,443	20,742	-73,196	146,989	1,042,498
2012	36	214,461	21,875	-78,493	157,843	1,200,341
2013	37	230,610	23,061	-84,173	169,498	1,369,839
2014	38	247,975	24,302	-90,511	181,766	1,551,605
2015	39	266,648	25,598	-97,060	195,186	1,746,791
2016	40	286,727	26,952	-104,082	209,597	1,956,388
2017	41	308,318	28,365	-111,919	224,764	2,181,152
2018	42	331,486	29,834	-119,998	241,322	2,422,474
2019	43	348,160	30,986	-126,034	253,112	2,675,586
2020	44	361,156	31,782	-130,378	262,560	2,938,146
2021	45	374,640	32,219	-135,245	271,614	3,209,760
2022	46	388,627	33,034	-139,906	281,755	3,491,515
2023	47	403,133	33,864	-145,128	291,869	3,783,384
2024	48	418,187	34,710	-150,547	302,350	4,085,734
2025	49	433,885	35,579	-155,765	313,699	4,399,433
2026	50	432,818	35,491	-155,382	312,927	4,712,360
2027	51	431,748	35,403	-154,997	312,154	5,024,514
2028	52	430,681	35,315	-154,614	311,382	5,335,896
2029	53	429,618	35,228	-154,232	310,614	5,646,510
2030	54	428,558	35,142	-153,853	309,847	5,956,357
2031	55	427,499	35,055	-153,472	309,082	6,265,439
2032	56	426,442	34,968	-153,093	308,317	6,573,756
2033	57	425,391	34,882	-152,715	307,558	6,881,314
2034	58	424,338	34,796	-152,337	306,797	7,188,111
2035	59	423,294	34,710	-151,963	306,041	7,494,152
2036	60	422,250	34,625	-151,588	305,287	7,799,439
2037	61	421,204	34,538	-151,212	304,530	8,103,969
2038	62	420,165	34,453	-150,839	303,779	8,407,748
2039	63	419,127	34,369	-150,467	303,029	8,710,777
2040	64	418,092	34,283	-150,095	302,280	9,013,057
2041	65	417,060	34,199	-149,725	301,534	9,314,591
2042	66	416,027	34,114	-149,354	300,787	9,615,378
2043	67	415,003	34,031	-148,986	300,048	9,915,426
2044	68	413,975	33,946	-148,617	299,304	10,214,730
2045	69	412,952	33,862	-148,250	298,564	10,513,294
2046	70	411,937	33,779	-147,885	297,831	10,811,125
2047	71	410,919	33,695	-147,520	297,094	11,108,219
2048	72	409,904	33,612	-147,156	296,360	11,404,579
2049	73	408,893	33,529	-146,793	295,629	11,700,208
2050	74	407,880	33,446	-146,429	294,897	11,995,105

Table 9 (Cont.)

PRESENT VALUE OF NET WAGE AND BENEFIT LOSS
2001 - 2054

YEAR	AGE	WAGES	EMPLOYEE BENEFITS	PERSONAL CONSUMPTION	TOTAL	CUMULATE
****	***	**********	**********	**********	**********	**********
2051	75	406,873	33,364	-146,068	294,169	12,289,274
2052	76	405,872	33,281	-145,708	293,445	12,582,719
2053	77	404,866	33,199	-145,347	292,718	12,875,437
2054	78	86,038	7,055	-30,887	62,206	$12,937,643
NASSANEY		$17,884,564	$1,550,357	-$6,497,278	$12,937,643	

Table 10

LOSS OF PAST HOUSEHOLD SERVICES
2001 - 2019

YEAR	AGE	HOUSEHOLD SERVICES	CUMULATE
****	***	*********	********
2001	25	$2,689	$2,689
2002	26	9,022	11,711
2003	27	9,497	21,208
2004	28	9,916	31,124
2005	29	10,218	41,342
2006	30	10,615	51,957
2007	31	11,049	63,006
2008	32	11,374	74,380
2009	33	11,493	85,873
2010	34	11,634	97,507
2011	35	11,694	109,201
2012	36	12,381	121,582
2013	37	12,381	133,963
2014	38	12,698	146,661
2015	39	13,011	159,672
2016	40	13,289	172,961
2017	41	13,689	186,650
2018	42	14,090	200,740
2019	43	14,090	$214,830
NASSANEY		$214,830	

Table 11

PRESENT VALUE OF FUTURE HOUSEHOLD SERVICES
2020 - 2054

YEAR	AGE	HOUSEHOLD SERVICES	DISCOUNT FACTOR	PRESENT VALUE	CUMULATE
****	***	*********	********	********	********
2020	44	$14,948	0.98765	$14,763	$14,763
2021	45	15,097	0.97546	14,727	29,490
2022	46	19,130	0.96342	18,430	47,920
2023	47	19,321	0.95152	18,384	66,304
2024	48	19,514	0.93978	18,339	84,643
2025	49	19,709	0.92817	18,293	102,936
2026	50	19,906	0.91672	18,248	121,184
2027	51	20,105	0.90540	18,203	139,387
2028	52	20,306	0.89422	18,158	157,545
2029	53	20,509	0.88318	18,113	175,658
2030	54	20,714	0.87228	18,068	193,726
2031	55	20,921	0.86151	18,024	211,750
2032	56	21,008	0.85087	17,875	229,625
2033	57	21,218	0.84037	17,831	247,456
2034	58	21,430	0.82999	17,787	265,243
2035	59	21,644	0.81975	17,743	282,986
2036	60	21,860	0.80963	17,699	300,685
2037	61	22,079	0.79963	17,655	318,340
2038	62	22,300	0.78976	17,612	335,952
2039	63	22,523	0.78001	17,568	353,520
2040	64	22,748	0.77038	17,525	371,045
2041	65	22,975	0.76087	17,481	388,526
2042	66	23,205	0.75147	17,438	405,964
2043	67	23,437	0.74220	17,395	423,359
2044	68	34,327	0.73303	25,163	448,522
2045	69	34,670	0.72398	25,100	473,622
2046	70	35,017	0.71505	25,039	498,661
2047	71	35,367	0.70622	24,977	523,638
2048	72	35,721	0.69750	24,915	548,553
2049	73	36,078	0.68889	24,854	573,407
2050	74	36,439	0.68038	24,792	598,199
2051	75	36,803	0.67198	24,731	622,930
2052	76	32,597	0.66369	21,634	644,564
2053	77	32,923	0.65549	21,581	666,145
2054	78	7,015	0.65377	4,586	$670,731
SHAWN NASSANEY				$670,731	

Table 12

PRESENT VALUE OF NET HOUSEHOLD SERVICES LOSS
2001 - 2054

YEAR	AGE	HOUSEHOLD SERVICES	CUMULATE
****	***	*********	********
2001	25	$2,689	$2,689
2002	26	9,022	11,711
2003	27	9,497	21,208
2004	28	9,916	31,124
2005	29	10,218	41,342
2006	30	10,615	51,957
2007	31	11,049	63,006
2008	32	11,374	74,380
2009	33	11,493	85,873
2010	34	11,634	97,507
2011	35	11,694	109,201
2012	36	12,381	121,582
2013	37	12,381	133,963
2014	38	12,698	146,661
2015	39	13,011	159,672
2016	40	13,289	172,961
2017	41	13,689	186,650
2018	42	14,090	200,740
2019	43	14,090	214,830
2020	44	14,763	229,593
2021	45	14,727	244,320
2022	46	18,430	262,750
2023	47	18,384	281,134
2024	48	18,339	299,473
2025	49	18,293	317,766
2026	50	18,248	336,014
2027	51	18,203	354,217
2028	52	18,158	372,375
2029	53	18,113	390,488
2030	54	18,068	408,556
2031	55	18,024	426,580
2032	56	17,875	444,455
2033	57	17,831	462,286
2034	58	17,787	480,073
2035	59	17,743	497,816
2036	60	17,699	515,515
2037	61	17,655	533,170
2038	62	17,612	550,782
2039	63	17,568	568,350
2040	64	17,525	585,875
2041	65	17,481	603,356
2042	66	17,438	620,794
2043	67	17,395	638,189
2044	68	25,163	663,352
2045	69	25,100	688,452
2046	70	25,039	713,491
2047	71	24,977	738,468
2048	72	24,915	763,383
2049	73	24,854	788,237
2050	74	24,792	813,029

Table 12 (Cont.)

PRESENT VALUE OF NET HOUSEHOLD SERVICES LOSS
2001 - 2054

YEAR	AGE	HOUSEHOLD SERVICES	CUMULATE
****	***	*********	********
2051	75	24,731	837,760
2052	76	21,634	859,394
2053	77	21,581	880,975
2054	78	4,586	$885,561
NASSANEY		$885,561	

Table 13

LOSS OF PAST LVL OF SHAWN
2001 - 2019

YEAR	AGE	LVL	CUMULATE
****	***	**********	**********
2001	25	$29,936	$29,936
2002	26	100,782	130,718
2003	27	102,677	233,395
2004	28	106,024	339,419
2005	29	109,650	449,069
2006	30	112,436	561,505
2007	31	117,023	678,528
2008	32	117,128	795,656
2009	33	120,314	915,970
2010	34	112,119	1,028,089
2011	35	125,734	1,153,823
2012	36	127,921	1,281,744
2013	37	129,840	1,411,584
2014	38	130,827	1,542,411
2015	39	131,782	1,674,193
2016	40	134,510	1,808,703
2017	41	137,348	1,946,051
2018	42	139,971	2,086,022
2019	43	142,771	$2,228,793
NASSANEY		$2,228,793	

Table 14

PRESENT VALUE OF FUTURE LVL OF SHAWN
2020 - 2054

YEAR	AGE	LVL	DISCOUNT FACTOR	PRESENT VALUE	CUMULATE
****	***	********	********	**********	**********
2020	44	$145,626	0.98765	$143,828	$143,828
2021	45	145,626	0.97546	142,052	285,880
2022	46	145,626	0.96342	140,299	426,179
2023	47	145,626	0.95152	138,566	564,745
2024	48	145,626	0.93978	136,856	701,601
2025	49	145,626	0.92817	135,166	836,767
2026	50	145,626	0.91672	133,498	970,265
2027	51	145,626	0.90540	131,850	1,102,115
2028	52	145,626	0.89422	130,222	1,232,337
2029	53	145,626	0.88318	128,614	1,360,951
2030	54	145,626	0.87228	127,027	1,487,978
2031	55	145,626	0.86151	125,458	1,613,436
2032	56	145,626	0.85087	123,909	1,737,345
2033	57	145,626	0.84037	122,380	1,859,725
2034	58	145,626	0.82999	120,868	1,980,593
2035	59	145,626	0.81975	119,377	2,099,970
2036	60	145,626	0.80963	117,903	2,217,873
2037	61	145,626	0.79963	116,447	2,334,320
2038	62	145,626	0.78976	115,010	2,449,330
2039	63	145,626	0.78001	113,590	2,562,920
2040	64	145,626	0.77038	112,187	2,675,107
2041	65	145,626	0.76087	110,802	2,785,909
2042	66	145,626	0.75147	109,434	2,895,343
2043	67	145,626	0.74220	108,084	3,003,427
2044	68	145,626	0.73303	106,748	3,110,175
2045	69	145,626	0.72398	105,430	3,215,605
2046	70	145,626	0.71505	104,130	3,319,735
2047	71	145,626	0.70622	102,844	3,422,579
2048	72	145,626	0.69750	101,574	3,524,153
2049	73	145,626	0.68889	100,320	3,624,473
2050	74	145,626	0.68038	99,081	3,723,554
2051	75	145,626	0.67198	97,858	3,821,412
2052	76	145,626	0.66369	96,651	3,918,063
2053	77	145,626	0.65549	95,456	4,013,519
2054	78	30,721	0.65377	20,084	$4,033,603

SHAWN NASSANEY $4,033,603

Table 15

PRESENT VALUE OF NET LVL OF SHAWN
2001 - 2054

YEAR	AGE	LVL	CUMULATE
2001	25	$29,936	$29,936
2002	26	100,782	130,718
2003	27	102,677	233,395
2004	28	106,024	339,419
2005	29	109,650	449,069
2006	30	112,436	561,505
2007	31	117,023	678,528
2008	32	117,128	795,656
2009	33	120,314	915,970
2010	34	112,119	1,028,089
2011	35	125,734	1,153,823
2012	36	127,921	1,281,744
2013	37	129,840	1,411,584
2014	38	130,827	1,542,411
2015	39	131,782	1,674,193
2016	40	134,510	1,808,703
2017	41	137,348	1,946,051
2018	42	139,971	2,086,022
2019	43	142,771	2,228,793
2020	44	143,828	2,372,621
2021	45	142,052	2,514,673
2022	46	140,299	2,654,972
2023	47	138,566	2,793,538
2024	48	136,856	2,930,394
2025	49	135,166	3,065,560
2026	50	133,498	3,199,058
2027	51	131,850	3,330,908
2028	52	130,222	3,461,130
2029	53	128,614	3,589,744
2030	54	127,027	3,716,771
2031	55	125,458	3,842,229
2032	56	123,909	3,966,138
2033	57	122,380	4,088,518
2034	58	120,868	4,209,386
2035	59	119,377	4,328,763
2036	60	117,903	4,446,666
2037	61	116,447	4,563,113
2038	62	115,010	4,678,123
2039	63	113,590	4,791,713
2040	64	112,187	4,903,900
2041	65	110,802	5,014,702
2042	66	109,434	5,124,136
2043	67	108,084	5,232,220
2044	68	106,748	5,338,968
2045	69	105,430	5,444,398
2046	70	104,130	5,548,528
2047	71	102,844	5,651,372
2048	72	101,574	5,752,946
2049	73	100,320	5,853,266
2050	74	99,081	5,952,347

Table 15 (Cont.)

PRESENT VALUE OF NET LVL OF SHAWN
2001 - 2054

YEAR	AGE	LVL	CUMULATE
****	***	**********	**********
2051	75	97,858	6,050,205
2052	76	96,651	6,146,856
2053	77	95,456	6,242,312
2054	78	20,084	$6,262,396
NASSANEY		$6,262,396	